

ABSTRACT OF THE DISCLOSURE

UWB (Ultra Wide Band) waveform design to minimize narrowband interference. A novel solution is presented such that a PN (Pseudo-Noise) code may be intelligently designed so as to null portions of a UWB spectrum that have a
5 significant amount of noise. These narrowband blocking intervals will effectively block off all of the interference within these portions of the UWB signal. These spectrum portions having interference may be predetermined beforehand or determined by one or more of the devices within the communication system; in addition, any changes in the interference may also be assessed in real time or successively (e.g.,
10 after the elapse of every predetermined period of time). Moreover, the position of the devices within the communication system may also be employed when selecting the nulling codes, and they may be adaptively changed, in real time, to respond to changes in the interference and/or changes in the devices' positions.